

Application No. 10/822,642

REMARKS

Claims 20, 22-26, 28-43 are pending. By this Amendment, claims 20, 24, 25, 31-35 and 39 are amended to more particularly point out Applicants' claimed invention. In particular, claim 20 was amended for clarity. The amendment of claim 20 is supported by the specification, for example, at page 9, lines 25-26, page 27, lines 21-22 and more generally from page 21, line 28 to page 28, line 2. The amendment of claim 31 is supported in the specification, for example, at page 12, lines 19-20, page 43, line 26 to page 44, line 2 and page 52, lines 2-3. Claims 24, 25, 32-35 and 39 are amended for consistency with the amendments of independent claims 20 and 31. No new matter is introduced by the amendments.

All pending claims stand rejected. Applicants respectfully request reconsideration of the rejections based on the following analysis.

Rejection under 35 U.S.C. § 112, Second Paragraph

The Examiner rejected claims 20, 22-26, 28-30, 35, 39, 40, 42 and 43 under 35 U.S.C. § 112, second paragraph, as being indefinite. Specifically, the Examiner has argued that the terms "metal" and/or "rare-earth metal" are indefinite as used by Applicants. Furthermore, the Examiner asserted that "It is well understood that metals and oxides are mutually exclusive substances and applicant has failed to define the terms in any manner." With all due respect, Applicants maintain strenuously that they are using terms in their conventional meaning. Nevertheless, additional clarity is certainly desirable. Thus, Applicants have amended claim 20 for clarity. Applicants respectfully request reconsideration of the rejections based on the following comments.

With all due respect, Applicants are surprised by the particular construction the Examiner had imposed on the claim with the previous wording. However, Applicants believe that more

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appropriate terminology has now been selected for claim 20. This terminology is consistent with usage in the patent specification as well as usage in the art. The amended claim should have the scope that has been asserted by Applicants while satisfying the Examiner's concerns. Hopefully this amendment avoids the need for a detailed analysis of chemical terminology.

Applicants renew their request for the Examiner to phone Applicants' undersigned representative if the Examiner still asserts indefiniteness with respect to claim 20. In view of the clarifying amendment and the above comments, Applicants respectfully request withdrawal of the rejection of claims 20, 22-26, 28-30, 35, 39, 40, 42 and 43 under 35 U.S.C. § 112, second paragraph, as being indefinite.

The Examiner further rejected claims 20, 22-26, 28-30, 35 and 39-40 under 35 U.S.C. § 112, second paragraph as failing to set forth the subject matter which applicant(s) regard as their invention. Applicants believe that the amendment of claim 20 and the above discussion should similarly resolve this issue. Thus, Applicants respectfully request withdrawal of the rejection of claims 20, 22-26, 28-30, 35 and 39-40 under 35 U.S.C. § 112, second paragraph as failing to set forth the subject matter which applicant(s) regard as their invention.

Rejection Over Hicks under 35 U.S.C. § 102

The Examiner rejected claim 20 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,749,396 to Hicks (the Hicks patent). The Examiner has taken a surprising broad definition of "rare earth metal." To advance prosecution of the case, Applicants have amended claim 20 to more particularly point out their claimed invention. Specifically, Applicants have removed the offending term "metal" from the claim. Since Hicks clearly does not teach all features of the claims, Hicks does not *prima facie* anticipate Applicants' claimed invention. Applicants respectfully request reconsideration of the rejection based on the following comments.

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"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP § 2131 citing Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Hicks does not disclose compositions comprising a rare earth element. As such, because Hicks does not teach or suggest all of the limitations of claim 20, Hicks does not prima facie anticipate claim 20. Applicants respectfully request withdrawal of the rejection of claim 20 under 35 U.S.C. § 102(b) as being anticipated by Hicks.

Rejection Over Hicks, Berkey and Kobayashi under 35 U.S.C. § 103(a)

The Examiner rejected claims 22, 23, 28-31 and 35-43 under 35 U.S.C. § 103(a) as being unpatentable over the Hicks patent in view of U.S. Patent 4,684,384 to Berkey (the Berkey patent) and U.S. Patent 3,957,474 to Kobayashi et al. (the Kobayashi patent). The Examiner cited Berkey for disclosing that a laser can be used to heat reactants in a CVD process and Kobayashi for disclosing that laser can be better than a flame for glass formation. Applicants have amended claims 20 and 31 to more particularly point out their invention. As clarified, the cited references alone or combined do not render Applicants' claimed invention *prima facie* obvious. Applicants respectfully request reconsideration of the rejection in view of the following comments.

"To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The

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teaching or suggestion to make the claimed combination and reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." MPEP § 2142 (citing In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)).

With respect to claims 22, 23, 28-30 and 39-41, these claims depend from claim 20. Applicants note that none of the cited references teach or suggest a coating for an insert comprising a rare earth element. Since the references alone or combined do not teach all of the claim elements, the combined teachings of the cited references do not render these claims *prima facie* obvious.

With respect to claims 31, 35-38, 42 and 43, Applicants have amended independent claim 31 to more particularly point out their claimed invention. Hicks does not teach or suggest a reaction to form a product stream driven by a light beam. Also, none of the cited references teach or suggest an optical path between a reactant inlet nozzle and an insert. In particular, the Kobayashi patent teaches away from the claimed invention since this patent teaches that the laser is directed at the mandrel/substrate and not between the reactant inlet and the substrate/insert. See, for example, all of the figures in Kobayashi and column 1, line 55 to column 2, lines 9. Since the references do not teach or suggest all of the claim elements and since the Kobayashi patent teaches away from the claimed invention, the combined teachings of the cited references do not render these claims *prima facie* obvious.

Since the combined teachings of the cited references do not render the claims *prima facie* obvious, Applicants respectfully request withdrawal of the rejection of claims 22, 23, 28-31 and 35-43 under 35 U.S.C. § 103(a) as being unpatentable over the Hicks patent in view of the Berkey patent and the Kobayashi patent. Although Applicants do not acquiesce in the Examiner's position on the particular issues, Applicants do not presently comment on the specific issues relating to the dependent claims since these issues are moot in view of the comments above.

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Rejection Over Hicks, Berkey, Kobayashi and Miller

The Examiner rejected claims 32-34 under 35 U.S.C. § 103(b) as being unpatentable over the Hicks patent in view of the Berkey patent and the Kobayashi patent as applied to claim 31, and further in view of U.S. Patent 4,501,602 to Miller (the Miller Patent). The Examiner cited the Miller patent for the disclosure of submicron CVD particles. Applicants have amended claim 31 to more particularly point out their claimed invention. The combined teachings of the references do not render Applicants' claimed invention *prima facie* obvious. Applicants respectfully request reconsideration of the rejection based on the following comments.

As noted above, the Hicks patent, the Berkey patent and the Kobayashi patent alone or combined do not teach or suggest an optical path between a reactant inlet nozzle and an insert/substrate, and the Kobayashi patent teaches away from this feature. The Miller patent does not make up for the deficiencies of the other references since the Miller patent does not teach a laser or other light source to drive a reaction. Since none of the cited references teach or suggest an optical path between a reactant inlet nozzle and an insert/substrate, the references alone or combined do not teach all of the claim elements. Thus, the combined teachings of the cited references do not render Applicants' claimed invention *prima facie* obvious. Applicants respectfully request withdrawal of the rejection of claims 32-34 under 35 U.S.C. § 103(b) as being unpatentable over the Hicks patent in view of the Berkey patent and the Kobayashi patent as applied to claim 31, and further in view of the Miller Patent. Although Applicants do not acquiesce in the Examiner's position on the particular issues, Applicants do not presently comment on the specific issues relating to the dependent claims since these issues are moot in view of the comments above.

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Rejection Over Hicks and Miller

The Examiner rejected claims 24-26 under 35 U.S.C. § 103(a) as unpatentable over the Hicks patent as applied to claim 20 in view of the Miller patent. The Examiner cited the Miller patent for disclosing information regarding particle size. However, in view of the clarifying amendment of claim 20, the references do not render Applicants' claimed invention *prima facie* obvious. Applicants respectfully request reconsideration of the rejection based on the following comments.

The Hicks patent does not teach an insert for an optical fiber preform comprising a coating with a rare earth element. The Miller patent does not teach or suggest optical fiber preforms. Thus, the references alone or combined do not teach or suggest the formation of an optical fiber using an insert with a coating comprising a rare earth element. Since the references do not teach or suggest all of the claim elements, the combined teachings of the references do not render Applicants' claimed invention *prima facie* obvious. Applicants respectfully request withdrawal of the rejection of claims 24-26 under 35 U.S.C. § 103(a) as unpatentable over the Hicks patent as applied to claim 20 in view of the Miller patent. Although Applicants do not acquiesce in the Examiner's position on the particular issues, Applicants do not presently comment on the specific issues relating to the dependent claims since these issues are moot in view of the comments above.

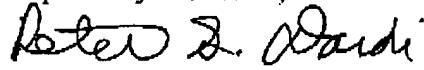
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CONCLUSIONS

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,



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